REMARKS

1. Claims Rejections - 35 U.S.C. §102(e) – Claims 1-34

Claims 1-34 are pending in the present application, and were rejected in the Office Action dated August 19, 2003, under 35 U.S.C. §102(e) as being anticipated by Weinreb (U.S. Patent No. 2,251,112). Applicant respectfully traverses this rejection. Claims 1, 12, 19, and 24 are independent claims. Claims 2-11 depend from independent claim 1; claims 13-18 depend from independent claim 12; claims 20-23 depend from independent claim 19; and claims 25-34 depend from independent claim 24. For brevity, only the bases for the rejection of the independent claims are traversed in detail on the understanding that dependent claims are also patentably distinct over the prior art as they depend directly from their respective independent claims. Nevertheless, the dependent claims include additional features that, in combination with those of the independent claims, provide further, separate, and independent bases for patentability.

The Examiner states that Weinreb anticipates the claimed invention (i.e., includes each and every element of claims 1-34). However, the Weinreb reference is *specifically* directed towards a *specialized data acquisition system* that includes a host computer, a controller, and measurement components for use in measuring electrical signals, while the claimed invention is directed towards a *generic device controller unit* that interfaces between a processor and any number of *generic* peripheral devices, thereby allowing *true real time control* of the *generic* peripheral devices.

The Examiner has apparently relied heavily on the fact that the Weinreb reference uses the term "real time" in its disclosure; however, closer examination reveals that the Weinreb reference has created its own definition of *"real time"* that is far different, and contrary to the concept of *"true real time"* as required by the claimed invention. In the Weinreb reference, a controller 103 includes a "microcontroller unit (MCU) 201 which controls operation in real time of all network devices 105 in communication with the controller 103, responsive to instructions received from the host computer." The Weinreb reference then specifically defines the term "real time" as follows:

2

> In this context, *real-time control includes those control and communication functions that are required or desired to occur at predetermined times or scheduled intervals, without variation.* (emphasis added).

Col. 4, lines 55-58.

Accordingly, it would be much more accurate to refer to the Weinreb reference as only possessing the ability to execute non-variable, scheduled interval, control and communication functions, not real-time control. In stark contrast, the claimed invention is specifically described in the claim language to possess "true real-time" control and, as such, is not limited to "predetermined time or scheduled interval" type of control that does not allow variation, and thus, does not provide control at all times.

Specifically, the "scheduled interval control" of the Weinreb reference is explicitly designed to include a communication cycle that contains a unique quiescent phase, during which all control signals whatsoever are prohibited in order to minimize noise levels and allow accurate measurements to be performed. The Weinreb reference recites in claim 1 that "the network controller subsystem causing the digital control signals controlling the measurement component to sequentially enter a communications phase during which the digital control signals vary and a quiescent phase during which the digital control signals do not vary and the measurement component performs a measurement." Col. 9, lines 17-24.

Obviously, since all control signals are prohibited during this *quiescent phase*, "true real time" control cannot exist in this type of communication cycle. In this regard, the Weinreb reference further clarifies that "the communication cycle over the network includes a quiescent phase during which sensitive components settle in an electrically noise-free environment, i.e. no digital signals inside the network devices are switching during the quiescent phase."

The Weinreb reference also differs from the claimed invention, in that the Weinreb invention is specifically described in the claims, the description, the abstract, and the even the title, as a Network-based *Data Acquisition* System, while the claimed invention is clearly described as a *Generic Device* Controller Unit that is configured to control *generic* peripheral devices in "true real time." The Weinreb invention is so explicitly designed as a data acquisition

measurement system that it is quite limited in its application and certainly is NOT capable of providing "true real time" control to any *generic* peripheral device.

The Weinreb reference clearly explains that in order to function, it requires a microcontroller unit (MCU), wherein the "MCU 201 includes a *proprietary* Queued Serial Peripheral Interface (QSPI) port 203. *The QSPI port 203 forms the basis of the hardware layer of the digital network bus 107 through which the network device 105 and the controller 103 communicate.*" Col. 4, lines 62-65. Furthermore, the Weinreb reference describes the proprietary procedure carried out by the data acquisition system as follows:

> Software executing on the controller MCU 201 compiles the host computer commands into QSPI commands, which place sequences of bits onto a stack within the 68332 MCU 201. *The QSPI then takes the sequences of bits from the stack and assembles them into a sequence of bits issued through the QSPI port 203 of the 68332 MCU and drives them to the network device 105 over the network bus 107.* (emphasis added).
>
> Col. 5, line 64 - Col. 6, line 4.

Indeed, the Weinreb *Data Acquisition* system is NOT configured to provide true real time control of a "generic peripheral device" since it was specifically and uniquely designed for a measurement system in which "*only the series of measurements are of a time-critical nature, since they must occur at fixed times or intervals during or relative to the phenomena to be measured.*" (emphasis added). Col. 4, lines 14-16. Thus, the Weinreb reference is configured to address a unique situation where real time control is only required at certain intervals, and does not teach or suggest the "true real time" control of a "generic peripheral device" recited in the claimed invention. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejection of claims 1-34 as unpatentable over Weinreb has been overcome.

CONCLUSION

Applicant has made an earnest and bona fide effort to clarify the issues before the Examiner and to place this case in condition for allowance. In view of the foregoing discussions, it is clear that the differences between the claimed invention and the prior art are such that the claimed invention is patentably distinct over the prior art. Therefore, reconsideration and allowance of claims 1-34 is believed to be in order, and an early Notice of Allowance to this effect is respectfully requested. If the Examiner should have any questions concerning the foregoing, the Examiner is invited to telephone the undersigned attorney at (310) 712-8319. The undersigned attorney can normally be reached Monday through Friday from about 9:30 AM to 6:30 PM Pacific Time.

Respectfully submitted,

Dated: _1/20/04_

Brooke W. Quist

BROOKE W. QUIST
Reg. No. 45,030
BROWN RAYSMAN MILLSTEIN FELDER
    & STEINER LLP
1880 Century Park East, Suite 711
Los Angeles, California 90067
(310) 712-8300